

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listing of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently amended) A photoconductive encoder wheel, comprising:

a sensor;

a light source disposed perpendicular to the sensor; and

a grating cogwheel having a housing, the grating cogwheel having a plurality of oblique-cone spaces located around a circumference of the housing and set concavely with respect to the housing and an incident surface surrounding a protruding surface, a plurality of protruding wheel parts being divided in equal arc-shapes and surrounding the grating cogwheel, an inclined surface being formed between each oblique-cone space and the housing, wherein light from the light source is refracted to the protruding wheel parts and focused thereby onto the sensor to generate different phase sequence signals. [[;]]

a sensor;

two light sources perpendicular to each other; and

an incident surface of the grating cogwheel surrounding a protruding surface, and a plurality of protruding wheel parts being divided in equal arc shapes and

~~surrounding the grating cogwheel for focusing light of a light source by the protruding surface of the grating cogwheel;~~

~~wherein the light is refracted to corresponding protruding wheel parts for focusing again, the light being transmitted to the sensor to generate different phase sequence signals.~~

Claim 2 (Currently amended) The photoconductive encoder structure as in claim 1, wherein the ~~grating cogwheel further comprises~~ housing is a disk-shaped housing, and the grating cogwheel further comprises a cylinder with a columnar space ~~therein~~ protrudes protruding from a center of the housing.

Claim 3 (Original) The photoconductive encoder structure as in claim 1, wherein the grating cogwheel is made of light-transparent materials.

Claims 4 - 5 (Cancelled).